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ADVENTURES



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SBIR★STTR

# **SBIR/STTR Phase I: Focus Areas**

# Overview

- Phase I - the Feasibility Study
- What happens after Phase I award?
- What is a Focus Area?
- How do DoD customers/end users submit a Focus Area?
- Why are Focus Areas Important?
- How do companies find customers?
- How does AFWERX help?



# Phase I - The Feasibility Study

**Objective:** Conduct feasibility-related experimental or theoretical research/R&D related to agency's requirements to determine the scientific and technical merit and feasibility of the proposed effort and the quality of performance of the offeror.

In other words...Find the fit between the non-defense commercial product and the Air Force Market

- Short Period of Performance: 3 months
- A maximum award of \$50K
- On contract to conduct Feasibility Study
- There are two deliverables (preliminary & final reports)
- Prepare for Phase II application
- Work to get an AF Customer & End User to sign an MOU for Phase II proposal.

# What happens after Phase I award?

- 1) Work to find an Air Force customer and end user that are interested in and have a need for your technology. Hold meetings to see if the technology solution is feasible.
- 2) If you find a match between your product and an Air Force end-user, you can apply for a Phase II award by submitting a proposal.
  - a) Need a signed MOU with:
    - i) Customer - Acquisitions/Program Management Office
    - ii) End user - Warfighter or Operator using the solution
  - b) Phase II is the demonstration or prototype stage with your identified Air Force customer and end user.



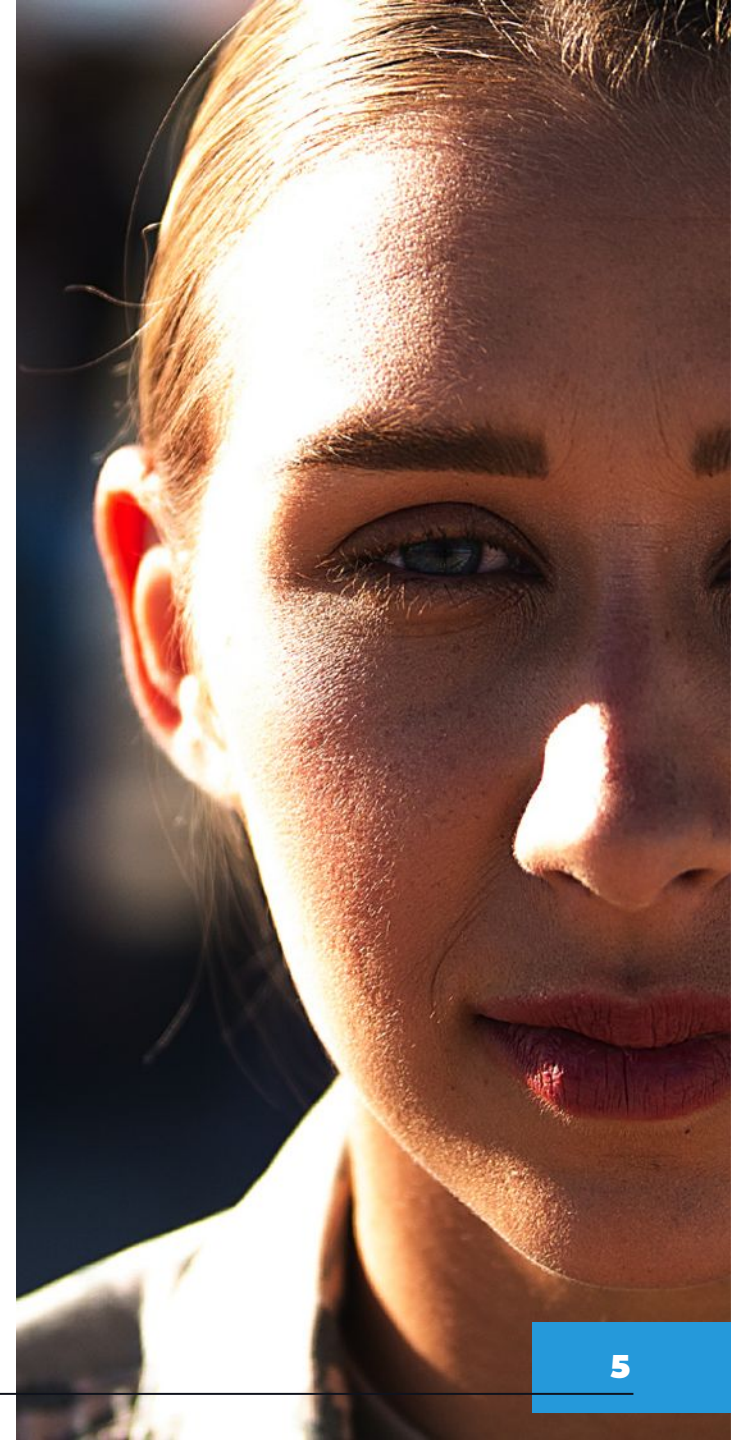
# What is a Focus Area?

**Open Topic** program operates on a single solicitation that is an open call for all solutions.

- Solution & technology agnostic
- Show us solutions we may not have considered

Government users can publish a **Focus Area** specific to their mission needs.

- Define user needs & use cases
- Provide a POC to that government need
- Technology agnostic...but what would a solution offer the warfighter?



# How to write a Focus Area?

## Easy as 1 - 2- 3

### 1. **Create a Title**

Be creative! Draft a descriptive title that will stand out to a small business. A good title is too the point and easily understandable to small businesses whom may be unfamiliar with military terminology

### 2. **Define the Problem Statement**

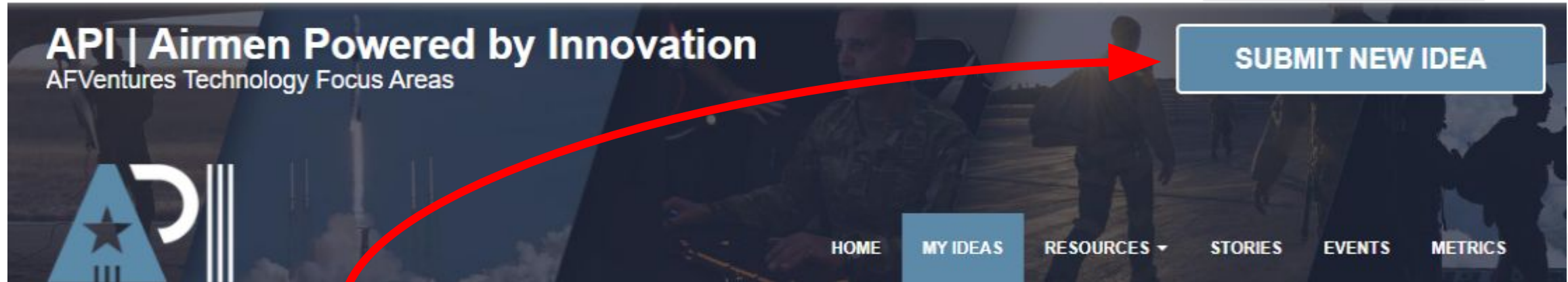
A statement that covers the current level of technology that is being used today and how and why the Air Forces need this new technology to improve performance or replace existing technology with something new.

### 3. **Objective**

A clear defined description of what the Air Force is looking for from this focus area. This description should include, what solutions this technology should provide the Air Force with.

# How to submit a Focus Area

Create an account on the API Platform <https://usaf.ideascalegov.com/a/index>



Click on the Submit new idea button to get started entering the information for your Focus Area

Choose the AFVENTURES Technology Focus Areas



# How to Submit a Focus Area:

**Live Walkthrough!**



# How to submit a Focus Area

## Submit Your Idea

1 Draft ▾

\*Note: You may be required to answer additional questions from the AFWERX/AFRL SBIR team, or from the companies during the application process. Those who put more into this are more likely to have higher quality problems for companies to solve.

\*Required fields

Campaign\* ✓ Completed: Required Field 1 of 7

AFVentures Technology Focus Areas ▾

Title\*

128 characters left in Title field

Summarize your problem\*



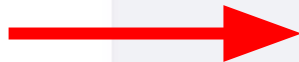
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# How to submit a Focus Area?:

## Additional Fields

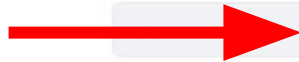
You may wish to add important information to your Focus Area

Describes what limitations and constraints this solution will need to operate under (ie nuclear certification)



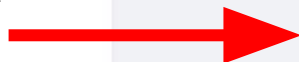
Adding a preferred TRL level is very important

What is the minimum desired Technology Readiness Level (TRL)?



It may be important to list resources needed to answer your Focus Area

What resources do you have? (i.e. Gov data, additional money, Gov equipment, etc)



3000 characters left in What resources do you have? (i.e. Gov data, additional money, Gov equipment, etc) field

# How to submit a Focus Area: Problem Statement

A Problem Statement is: A statement that covers the current level of technology that is being used today and how and why the Air Forces needs new technology to improve performance or replace existing technology.

## Problem Statement Examples:

**GOOD:** Developing trustable control architectures for hypersonic vehicles that guarantee stability, robustness, and performance is essential. The main reason for that is we are not able to perform the ground test and/or wind tunnel test to model the uncertainty (mostly unstructured) and the effect of flexible (unmodeled) dynamics on these vehicles. That is, the models that are available in the literature neither capture the exact model of the hypersonic vehicles nor the effect of unavoidable flexible dynamics at high speeds.

- Covers the current level of technology that is being used
- Explains why the Air Forces need this new technology to improve performance or replace existing technology

**BAD:** Tools are required to map complex supply chains and determine where risks (Cost, Schedule, performance) should be managed across the supply chain.

- No reference to what type of tools or process
- No reference to existing technology

# How to submit a Focus Area: Objective

An Objective Statement is: A solid description of what the Air Force is looking for from this focus area. This description should include, what solutions this technology should provide the Air Force with.

**GOOD:** We are in search of a cross-domain digital air-delivered nuclear health assessment concept which integrates and synchronizes nuclear data, maintains version control, data integrity, and meets classification requirements.

- Describes needed solution
- Identifies what the Air Force is looking for

**BAD:** Higher environmental standards require less toxic emissions from aircraft. Food waste is monumental. Let's link the two.

- No description of what the Air Force is looking for
- No description of needed solution.

# How to submit a Focus Area:

## Technology Categories

### 1. Administration

- Administration
- Dress and Appearance
- Health/Physical Fitness
- Personnel
- Training
- Training/Learning

### 2. General Areas

- Additive, Manufacturing/Advanced Materials
- Base Infrastructure
- Energy and Power
- Energy and Efficiency
- Maintenance

### 3. Information Technology

- Artificial Intelligence and Machine Learning
- Augmented, mixed and virtual reality
- Communication and collaboration
- Cyber Security
- Data
- Data analytics
- Electronics Microelectronics
- Emerging Technologies
- Information Technology
- Modeling and Simulation
- Robotics

### 4. Mission Readiness

- Aeromedical Evacuation
- Air Refueling
- Autonomy and Autonomous systems
- Battle Management
- Cargo Operations
- Communications
- Emergency Response
- ISR
- Personnel Transportation
- Physical Security/ Security Forces



# How to submit a Focus Area: Tagging

**Tags** are searchable from within the API platform.

Tagging allows matching algorithms to pair Focus Areas to awarded technology solutions.

Be descriptive! Add tags to improve results!

**Tags**  
Tag your idea so it is easily searchable \*

Add tags

3d-printing artificial-intelligence augmented-reality augmentedlearning cnc  
computer computer-aided-d... laser-cutter laser-scanner milling  
mixed-reality prototyping robotics virtual-reality

# How to submit a Focus Area:

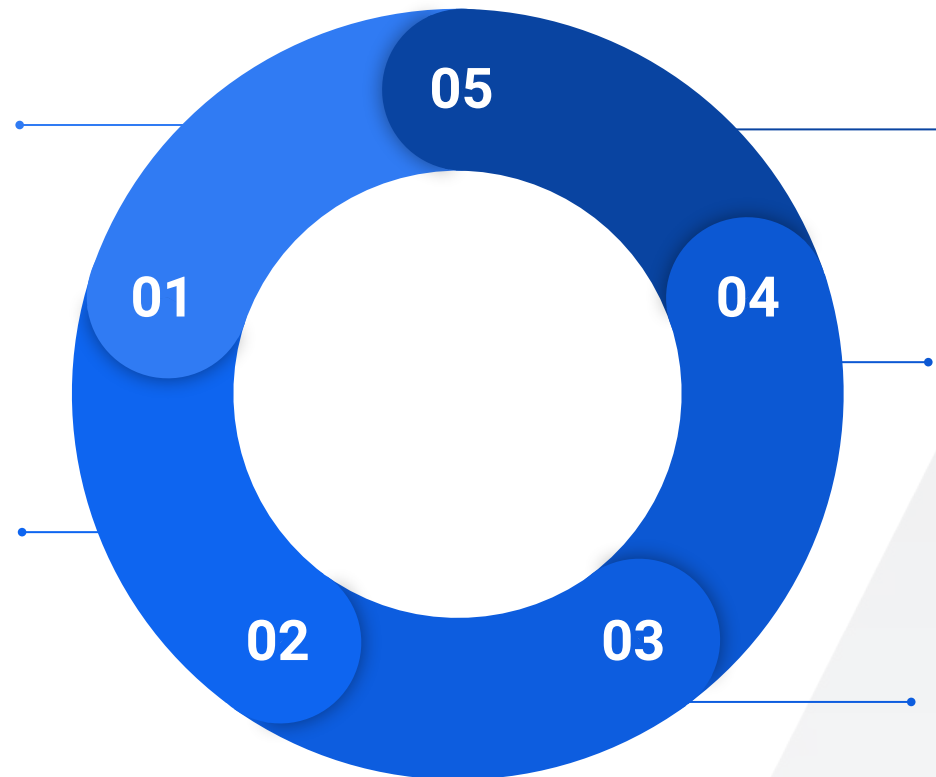
## Submission Approval Process

### Refinement Stage:

Allows Focus Area Author to edit their Focus Area

### Ready For OPSEC Review Stage:

The Focus Area must have an OPSEC Review from local security for Public Release



### Matched stage:

This stage indicates that the Focus Area has been matched to a small business.

### Portal stage:

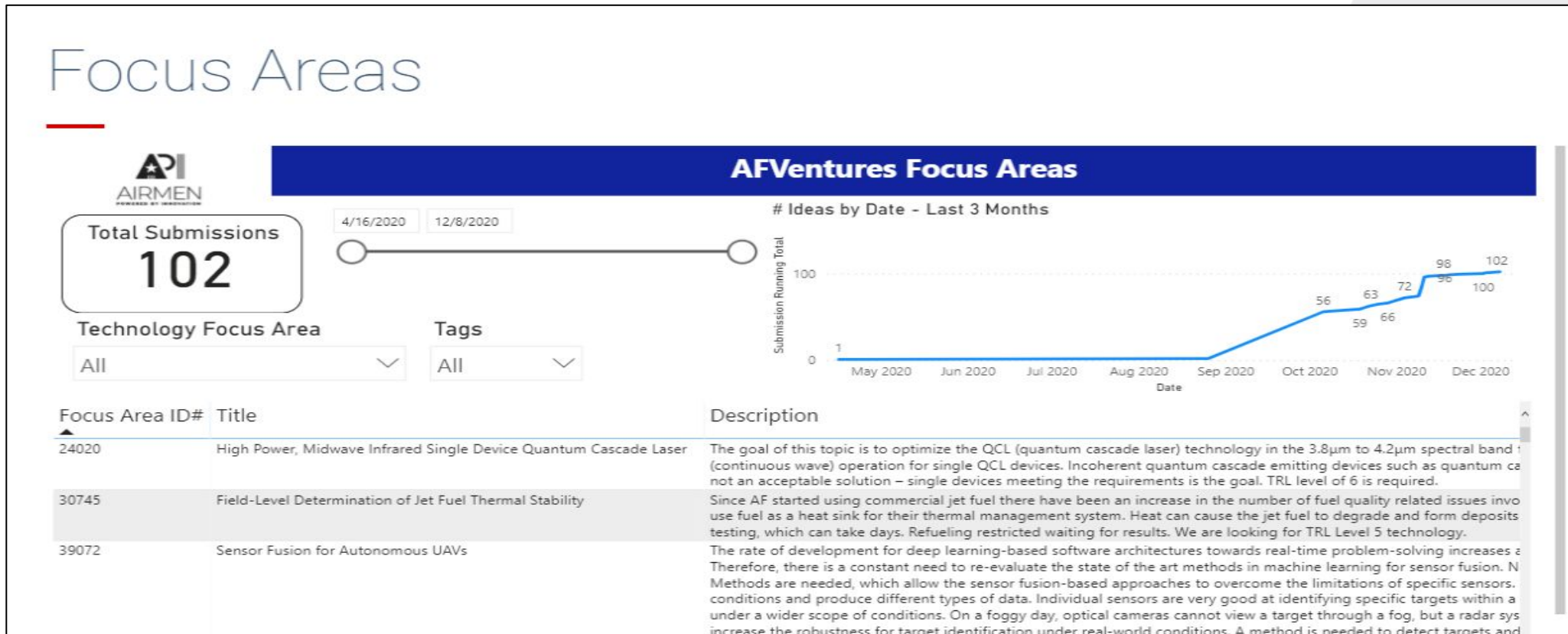
Allows the Focus Area Author to determine if they want to keep their Focus Area, edit it, or remove it.

### Published to AFEWRX Website Stage:

The Focus Area is published to the AFEWRX website for interaction with small businesses.

# How to Submit a Focus Area:

Published Database



# Why are Focus Areas important?

1. Focus Area owners are encouraged to **reach out to small businesses they have worked with in the past** to connect them to their Focus Areas.
2. Focus Area owners are **invited to Colliders and other collaboration events** to connect with small businesses
3. Focus Areas are **searchable so businesses can understand who their potential customers might be** in the DAF.

<https://www.afwerx.af.mil/afventures.html#focus-areas>

# How to find customers

## Utilize Focus Area search

- **Reach out** via the AFWERX Focus Area page to connect with Focus Area owners  
<https://www.afwerx.af.mil/afventures.html#focus-areas>
- **Reach out** to the POCs listed on Tech Connect  
<https://airforcetechconnect.org/>

## Know your audience!

- **DO NOT** mass email. Choose your audience.
- **Be specific:** show you read the focus area and introduce your small business's capability to solve the listed capability gap
- **Be specific:** show your knowledge from research and how you think you can help solve issues similar units experience
- **DO NOT** send generic introductory messages to senior leaders (SecDef, Chief of Staff, Generals, SES, PEOs)





# How does AFWERX help?

## AFWERX events

- Spark Colliders
- Accelerators
- Challenges
- Special Events (i.e., [AFWERX Fusion](#))

## Matching of awarded SBIR/STTR companies to Focus Areas.

- Company on-boarding forms: ID 5 Focus Areas for connection
- Focus Area owners receive list of matching companies to reach out to



# Spark Collider

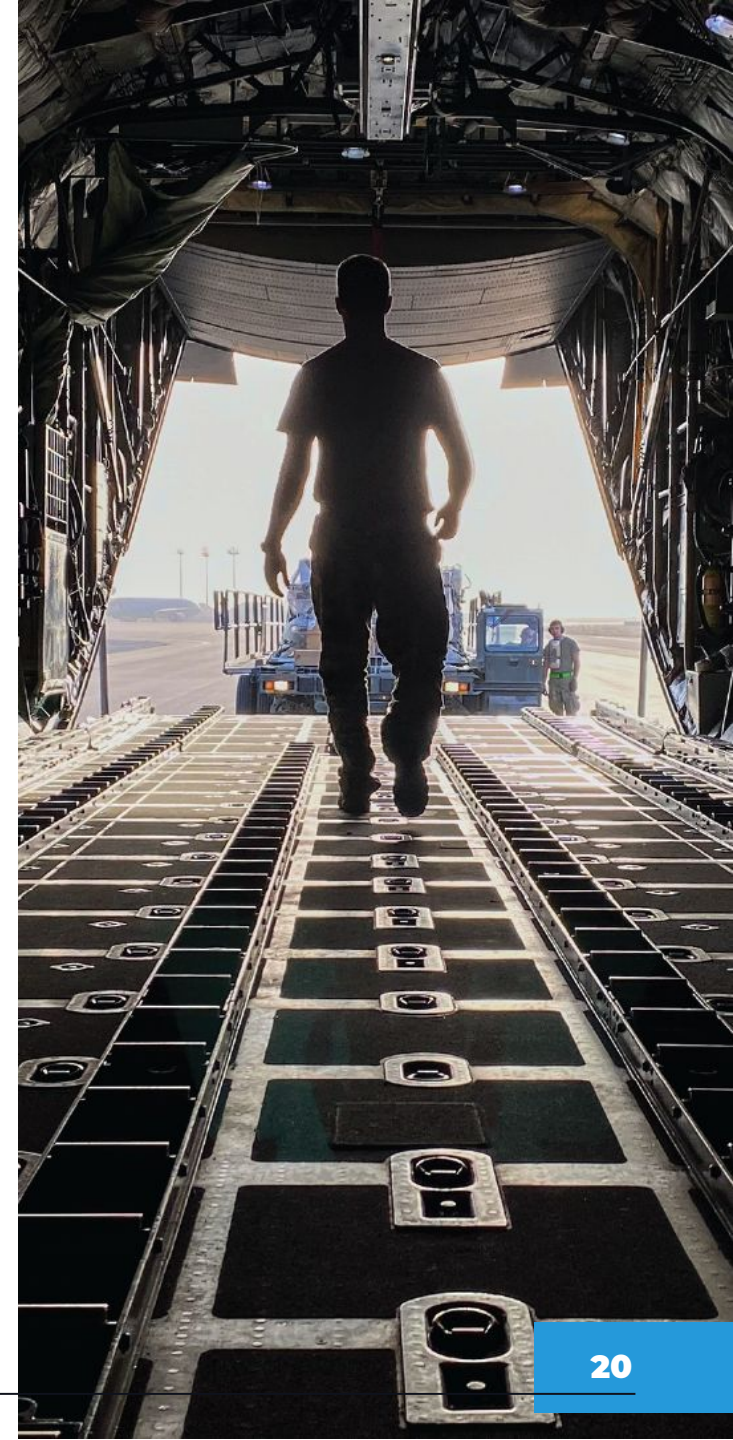
**“Is there a Defense market fit for my solution?”**

For each round of SBIR and STTR Phase I cohorts within the Open Topic, we hold a Spark Collider to facilitate customer discovery connections at scale.

- Segmented by technology areas
- Tailored invitations to government stakeholders
- Open to all government registration

**HYPOTHESIS:** If we create a mechanism to allow companies to showcase their solutions to a target audience, we can increase the likelihood of successful feasibility study (Phase I).

**WHY:** ~70% of the companies that receive a phase I contract have never done business with Department of Defense before.



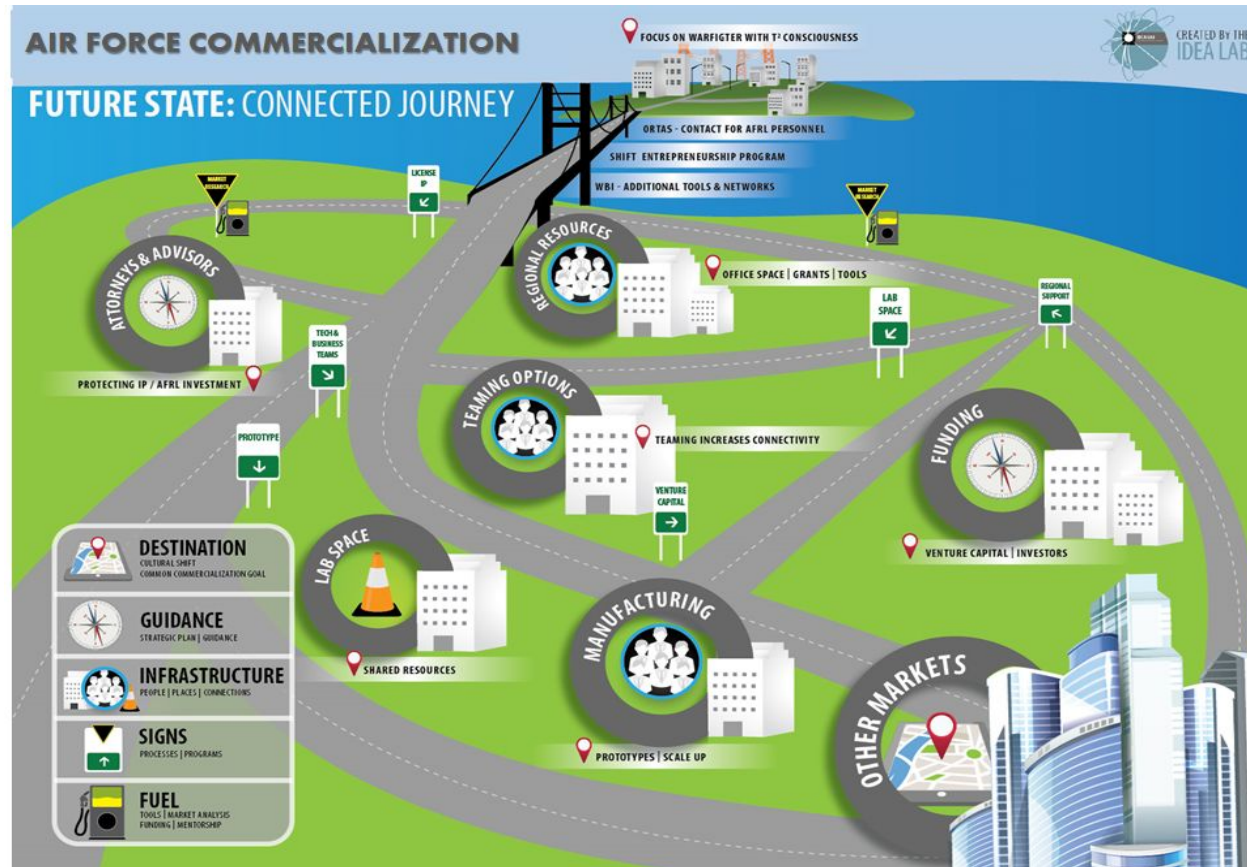
# Glance Into the Future

As we learn and iterate, AFWERX will be growing an online matching platform for Government and Industry

- “dating profile” for Focus Areas and awarded SBIR/STTR companies
- automated matching
- filterable search

# Air Force Commercialization

Future State: Connected Journey



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**Accelerator.** Accelerators offer competitive and structured programs focused on scaling the growth of an existing company. Accelerators

typically provide some amount of seed money and a network of mentors. Programs are typically a few months in duration culminating in an opportunity to pitch to investors at the conclusion of the program.

[AF Techstars Accelerator](#) | [Allied Space Accelerator](#) | [Catalyst Accelerator](#) | [Starburst Accelerator](#) | [T3 Accelerator](#)



**Funding Opportunity.** Funding opportunities are offered by organizations that seek to invest in and enhance the chances of success of entities (often

start-ups or small businesses) pursuing advancements in technology. These are not government contracts or agreements.

[AF Techstars Accelerator](#) | [Allied Space Accelerator](#) | [Catalyst Accelerator](#) | [Hyperspace Challenge](#) | [In-Q-Tel](#) | [NSIN](#) | [Starburst Accelerator](#) | [T3 Accelerator](#)



**Challenge.** A challenge can be a single or recurring contest or competition aimed at solving problems where emerging technologies have the

potential to provide non-traditional solutions, or to expand the pool of participants to address critical issues. Challenges may offer cash prizes or may be part of a broader Challenge-Based Acquisition (ChBA) strategy that may result in a government contract.

[AFWERX](#) | [Challenge.gov](#) | [ERDCWERX](#) | [Hyperspace Challenge](#) | [MGMWERX](#) | [NSIN](#) | [SOFWERX](#) | [STRIKEWERX](#) | [xTechsearch](#)



**Government Contracting Authority.** An organization with government contracting authority can execute contract awards or agreements for

government projects. These organizations have warranted Contracting Officers that are authorized to execute awards and agreements on behalf of the government.

[AF Techstars Accelerator](#) | [AFWERX](#) | [Allied Space Accelerator](#) | [Army Applications Lab](#) | [Army SBIR/STTR](#) | [Catalyst Accelerator](#) | [DARPA](#) | [DIU](#) | [DoD Labs](#) | [Doolittle Institute](#) | [Hyperspace Challenge](#) | [Navy SBIR/STTR](#) | [RRTO](#) | [RIF](#) | [SOFWERX](#) | [Starburst Accelerator](#) | [STRIKEWERX](#) | [T3 Accelerator](#) | [xTechsearch](#)



**Connector.** Connector organizations typically don't offer funding opportunities, nor do they award government contracts. Their objective is

to build networks and create relationships between government organizations, industry, private equity firms, and academia to facilitate partnerships to solve challenging problems by generating new solutions.

[AFWERX](#) | [Defense Innovation Marketplace](#) | [DEFENSEWERX](#) | [NSIN](#) | [NavalIX](#) | [SOFWERX](#)



**Incubator.** Incubators focus on start-up and entrepreneurial entities with innovative ideas. They provide seed funding and a collaborative physical

environment to grow ideas, brand identification, and business plans. Not-for-profit and government or university operated incubators seek to enhance the economy and/or advance the state of the art of the US industrial base.

[In-Q-Tel](#)





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**Questions?**



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**Thank You!**